

AMENDMENTS TO THE SPECIFICATION

Please amend the ABSTRACT OF THE DISCLOSURE at page 17, as follows:

[0036] A temperature sensor includes a membrane supported by a substrate and a circuit having elements for a substrate electrical resistance indicative of the temperature of a substrate and a membrane electrical resistance indicative of the temperature of a membrane. The substrate resistance and the membrane resistance are arranged in a bridge configuration to facilitate measurement of a differential voltage responsive to temperature change. The resulting temperature signal includes a first varying portion and a second varying portion. A controller receives a temperature signal from sensor, eliminates the second varying portion and generates a temperature value based on the based on the first varying portion. In this manner, the sensor provides an improved, fast response to changes in the surrounding temperature.

A system for determining a temperature includes a temperature sensor is composed of a substrate and a membrane. The substrate has a first substrate electrical resistance and a second electrical resistance that are responsive to a temperature of the substrate. The membrane has a first membrane electrical resistance and a second membrane electrical resistance responsive to a temperature of the membrane. The first and second substrate electrical resistances and the first and second membrane electrical resistances are

arranged in bridge configuration to facilitate measurement of a differential voltage indicative of a temperature change. A controller is coupled to the temperature sensor to receive a temperature signal having a first varying portion and a second varying portion, to eliminate the second varying portion, and to generate a temperature value based on the first varying portion.